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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,834	09/12/2003	Robert Essenreiter	SCHWP0180USA	7731

7590

10/19/2005

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Cleveland, OH 44115-2191

EXAMINER
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RAMIREZ, JOHN FERNANDO

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/661,834	<b>Applicant(s)</b> ESSENREITER ET AL.	
	<b>Examiner</b> John F. Ramirez	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/12/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

Accordingly, the examiner of record respectfully requests the submittal of the translation of the foreign document, EUROPEAN PATENT No. 02 020 474.9.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7 and 8 are rejected under 35 U.S.C. 101 because data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

The subject matter in claim 7 specifically discloses the limitation **“when running on a computer or loaded onto a computer”**, the term **“when”** expands the scope of the claim to include a program that does not require a computer per se, and therefore does not meet the requirements of statutory subject matter since the program by itself is not capable of causing a functional change in the computer.

In relation to claim 8, the phrase **“when executed”** also implies the possibility of a program not capable of causing functional change in the computer when the instructions are not being executed. Therefore, such language could be construed as non-statutory subject matter.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

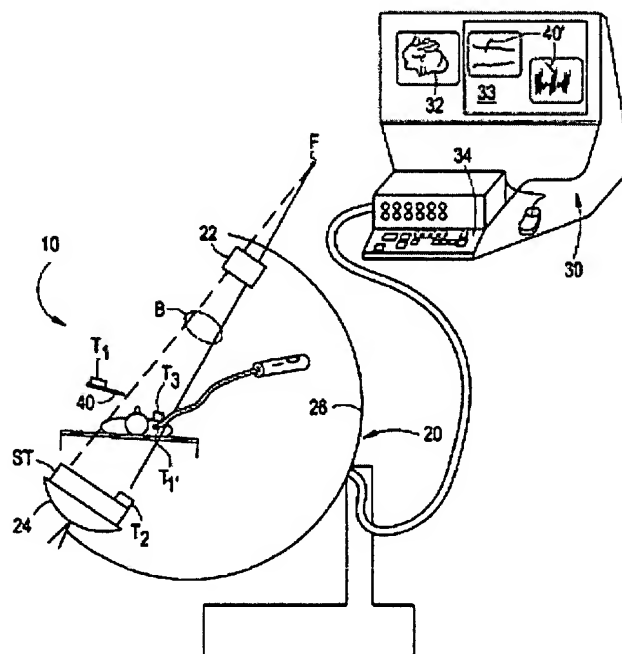
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Seeley et al. (US 6,484,049).

FIG. 1



In regards to claims 1-6, Seeley et al. discloses a method for displaying images in a medical navigation system assisted by x-ray images, calibrating an x-ray device in the medical navigation system (figures 1A, 3A, 3), producing a plurality of two-

dimensional x-ray images of a patient using the x-ray device (col. 7, lines 18-21), during the producing step, determining positions of the x-ray device using the medical navigation system, said determining step producing positional data (see abstract), converting data associated with the two-dimensional x-ray images into three-dimensional data, transferring (i) the two-dimensional x-ray images, (ii) x-ray device positional information corresponding to the two-dimension x-ray images, and (iii) the three-dimensional data to the navigation system, displaying at least the two-dimensional x-ray images on an image output of the medical navigation system (figure 1, element 30), the calibrating step includes determining a position of the x-ray device in relation to a calibration phantom using the navigation system (see figures 1A, 3A, 6) the calibrating step includes producing transformational matrices concerning spatial positions of the two-dimensional x-ray images (col.1, lines 31-56), the transformational matrices assigned to individual two-dimensional x-ray images are also transferred to the navigation system when the two-dimensional x-ray images are transferred, the calibrating and producing steps are performed using a C-arm x-ray device, and producing a plurality of two-dimensional x-ray images includes producing a series of isocentric x-ray images (col. 15, lines 52-67).

In regards to claim 8, Seeley et al. discloses a device with a machine-readable medium having stored thereon sequences of instructions that, when executed, cause at least an x-ray device and a navigation system to: calibrate the x-ray device in the medical navigation system, produce a plurality of two-dimensional x-ray images of a patient using the x-ray device, determine positions of the x-ray device using the medical

navigation system to produce positional data, convert data associated with the two-dimensional x-ray images into three-dimensional data; transfer (i) the two-dimensional x-ray images, (ii) x-ray device positional data corresponding to the two-dimensional x-ray images, and (iii) the three-dimensional data to the navigation system', and display at least the two-dimensional x-ray images on an image output of the medical navigation system (see figures. 1, 4, 5, 8).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3737

John F Ramirez  
Examiner  
Art Unit 3737

JFR  
10/06/05

  
**BRIAN L. CASLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**